REMARKS

The issue outstanding in the Final Rejection mailed May 2, 2007, is solely the rejection under 35 U.S.C. §103. The examiner is thanked for indicating withdrawal of the prior rejection under 35 U.S.C. §102.

At the outset, it is noted that Claim 4 has been amended in order to correct its dependency.

Rejection under 35 U.S.C. §103

Claims 2 and 4-15 (all pending claims) remain rejected under 35 U.S.C. §103 over Brunner taken with Gutsche. Reconsideration of this rejection is again respectfully requested.

As will be recalled, Brunner discloses to a method for pretreating crude oils and raw fats for the production of fatty acid esters by transesterification of oils and fats. The crude oils containing free fatty acid and slimy substances are treated with a mixture containing an alcohol and concentrated acid. Thus, the slimy substances swell, are not longer oil soluble and can be subsequently separated. See claim 1. The treated oil is then washed with an alkaline glycerol phase loaded with soaps of the free acids, and the slimy substance is separated as heavy phase from the neutral oil. The deslimed neutral oil is transesterified with an alkaline catalyst adding methanol. See claim 2.

As admitted at page 3 of the Final Rejection, Brunner discloses only a homogeneous catalysis process. Moreover, it is again emphasized that transesterification of vegetable or animal oils is not performed *simultaneously* with the esterification of the free acidity of the oils. However, at page 4 of the Final Rejection, it is argued that Gutsche remedies this deficiency. Instead, Gutsche describes a discontinuous process for conduction a heterogeneously catalyzed reaction. (See the abstract.) The problem addressed in this invention is to limit the losses of catalyst and product. This process can be used for esterification *or* transesterification reactions. See col.1, lines 25-37. However, it is not specified that the process could be used for vegetable or animal having a natural free acidity, which, as is generally known, disrupts the transesterfication reaction, nor is simultaneous esterification and transesterification taught.

While it is argued, in the Final Rejection, that Gutsche *does* disclose esterification of the fatty acid (hexadecanoic acid) obtained from vegetable oil, thus apparently suggesting esterification of a material having free acidity, in fact, the catalyst exemplified in Gutsche for

production of wax ester from hexadecanoic acid and hexadecyl alcohol is a strongly acidic ion exchanger resin.

Thus, combining these two documents, it is not obvious to one skilled in the art to simultaneously estrify and transesterify acid oils from vegetable or animal origin by heterogeneous catalysis. None of the documents suggests the reduction of the free acidity simultaneously to the transesterification of the oils, which allows the presently claimed process to proceed. The Brunner reference describes a desliming process of the crude oils and raw fats to lower the amount of phosphorous below the limit value permissible for biodiesel (see col. 6, lines 37-38). This pretreatment also permits to lower the content of free acids. It is clearly indicated (col 4, lines 10-14) that the pretreatment is conducted *prior to transesterification* (see also col. 4, lines 24-26). The deslimed neutral oil so obtained is *subsequently* transesterified in a common manner, alkalinely by adding methanol Thus, the described transesterification process uses a *homogeneous* catalyst (see col. 6, lines 35-37). Moreover, the temperature range is between 20°C and 70°C, and preferably below 50°C for alkaline transesterification. Gutsche thus not only does not discuss the natural free acidity of the oils which can be used as feeds to its process, but nowhere suggests simultaneously transesterifying and esterifying. Moreover, patentees do not exemplify any transesterification reactions. Thus, it is clear that patentees teach each reaction singly, and not the two together. Nowhere does either reference, singly or in combination, suggest that transesterification and esterification could be conducted *simultaneously* with the same catalyst, or with material having free acidity.

It is thus again respectfully submitted that the application is in condition for allowance, and passage to issue is respectfully requested. Should the examiner have any questions or comments, he is cordially invited to telephone the undersigned at the number below.

No fee is believed due with this response, however, the Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.Respectfully submitted,

/Harry B. Shubin/
Harry B. Shubin, Reg. No. 32,004
Attorney for Applicant(s)

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410
Attorney Docket No.: PET-2132

Date: August 2, 2007

HBS/cak